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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/607,010	06/29/2000	Masato Okabe	CU-2263 TFP	7333

7590 06/23/2003
Ladas & Parry
224 South Michigan Avenue
Chicago, IL 60604

EXAMINER

MCPHERSON, JOHN A

ART UNIT	PAPER NUMBER
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1756

DATE MAILED: 06/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/607,010

Applicant(s)

OKABE ET AL.

Examiner

John A. McPherson

Art Unit

1756

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 4/29/03.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 29-54 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 31-33, 46-48, 51 and 53 is/are allowed.
- 6) ☒ Claim(s) 29-30, 34-45, 49-50, 52 and 54 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/29/03 has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 49 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 49 depends from canceled claim 42, therefore the scope of the protection sought is unclear.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

Art Unit: 1756

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 29-30, 34-45, 49-50, 52 and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO99/08158 (WO '158) in view of EP 0 665 449 (EP '449) for the reasons of record as set forth in paragraph 5 of the Office Action mailed 11/1/02, and as further discussed below.

Allowable Subject Matter

4. Claims 31-33, 46-48, 51 and 53 are allowed.

Response to Arguments

5. Applicant's arguments filed 4/29/03 have been fully considered but they are not persuasive.

With respect to the embodiments of independent claims 29 and 44, Applicant argues that in EP '449 intermixture of the picture elements parts is prevented by using an intermixture preventing wall, and is not prevented by a wettability difference. However, while mixing-preventing walls are formed by patterned exposures at portions not to be colored in some embodiments of EP '449 (see page 7, lines 48-52 and Figures 4A-F and 7A-F), EP '449 also teaches other embodiments in which the wettability by the ink is improved at light exposed portions relative to unexposed portions, just as in the present invention (see page 9, lines 2-8). In these embodiments the "walls" are merely the unexposed regions which are left between the exposed portions. This is the same

Art Unit: 1756

as in claims 29-30, 34-45, 49-50, 52 and 54 of the present invention (see Figure 4A-D of the present specification).

Additionally with respect to claims 29 and 44, Applicant argues that the light shielding layer described in WO '158 is a component formed at a border part of the picture element to prevent intermixture of colors. However, while this appears to be correct with some embodiments of WO '158 (for example, see figure 13), WO '158 also teaches other embodiments in which the light shielding layer is provided on a transparent substrate, and a photocatalyst-containing layer is provided on the transparent substrate so as to cover the black matrix (for example, see Figure 14 and column 26, lines 38-52). In these embodiments the photocatalyst-containing layer is a continuous layer which does not have a component formed at the border part to prevent intermixture of colors. Instead, these embodiments utilize only the wettability difference between the exposed and unexposed portions to separate the colored areas, as in claims 29-30, 34-45, 49-50, 52 and 54 of the present invention.

Applicant's arguments with respect to independent claims 31, 32, 46 and 48 are persuasive, accordingly these claims, and the claims which depend therefrom, are allowable.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John A. McPherson whose telephone number is (703) 308-2302. The examiner can normally be reached on Monday through Friday, 7:30 AM to 4:00 PM.

Art Unit: 1756

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on (703) 308-2464. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



John A. McPherson
Primary Examiner
Art Unit 1756

JAM
June 19, 2003